

CLAIMS

1. A method of identifying whether or not a pregnant woman is at risk of developing pre-eclampsia or whether or not her fetus is at risk of developing
5 intrauterine growth restriction (IUGR), which method comprises measuring asymmetric dimethylarginine (ADMA) in the pregnant woman and thereby determining whether or not the woman is at risk of developing pre-eclampsia or determining whether or not her fetus is at risk of developing IUGR.
2. A method according to claim 1, wherein ADMA is measured in a
10 fluid sample taken from the woman.
3. A method according to claim 2, wherein determining whether or not the woman is at risk of developing pre-eclampsia or determining whether or not her fetus is at risk of developing IUGR comprises determining whether or not the ADMA is greater than 1.5 μ mol/L in the fluid sample.
- 15 4. A method according to any one of the preceding claims, wherein the pregnant woman is at a stage of pregnancy from 10 to 25 weeks gestation.
5. A method according to claim 4, wherein the woman is at a stage of pregnancy from 15 to 25 weeks gestation.
- 20 6. A method according to any one the preceding claims, wherein determining whether or not the woman is at risk of developing pre-eclampsia or determining whether or not her fetus is at risk of developing IUGR comprises determining whether or not the woman's ADMA level is at least 3 times the normal pregnancy level.
- 25 7. A method according to any one of the preceding claims, wherein determining whether or not the woman is at risk of developing pre-eclampsia or determining whether or not her fetus is at risk of developing IUGR comprises determining whether or not the woman has an increase in the ADMA/symmetric dimethylarginine (ADMA/SDMA) ratio that is greater than the normal pregnancy ratio.
- 30 8. A method according to claim 7, comprising determining whether or not the ADMA/SDMA ratio is at least 5 times more than the normal pregnancy ratio.

9. A method according to any one of the preceding claims, wherein the pregnant woman is suspected of being at risk of developing pre-eclampsia or her fetus is suspected of being at risk of developing IUGR.
10. A method according to claim 9, wherein the woman is a smoker.
- 5 11. A method according to any one of the preceding claims, further comprising carrying out Doppler waveform analysis of the uterine arteries and/or flow-mediated dilatation of the brachial artery in the woman.
12. Use of an ADMA antibody for the manufacture of means for determining whether or not a woman is at risk of developing pre-eclampsia or determining whether or not her fetus is at risk of developing IUGR.
- 10 13. Use according to claim 12, wherein the means comprises a buffer solution.
14. A method of inhibiting or preventing pre-eclampsia in a pregnant woman or inhibiting or preventing IUGR in her fetus, comprising administering to the pregnant woman an effective amount of an antagonist of ADMA activity.
- 15 15. A method according to claim 14, wherein the woman has been identified as at risk of developing pre-eclampsia or her fetus has been identified as at risk of developing IUGR by a method according to any one of claims 1 to 11.
- 20 16. Use of an antagonist of ADMA activity for the manufacture of a medicament for inhibiting or preventing pre-eclampsia or inhibiting or preventing IUGR.
17. A method according to claim 14 or 15 or use according to claim 16, wherein the antagonist of ADMA activity is L-arginine.
- 25 18. A non-human pregnant female animal in which pre-eclampsia has been established by administration of ADMA.
19. A non-human pregnant female animal in which IUGR has been established in her fetus by administration of ADMA.
20. A non-human fetus in which IUGR has been established by administration of ADMA to a non-human female animal that is pregnant with the fetus.
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21. A method for establishing pre-eclampsia in a non-human pregnant female animal or establishing IUGR in her fetus comprising administering ADMA to the animal in an amount sufficient to cause pre-eclampsia or IUGR.
22. A non-human pregnant female animal according to claim 18 or 19, a non-human fetus according to claim 20 or a method according to claim 21, wherein the non-human pregnant female animal is a dimethylarginine dimethylaminohydrolase (DDAH) deficient animal.
23. A method of identifying a substance which prevents or treats pre-eclampsia or prevents or treats IUGR, comprising administering a candidate substance to an animal as defined in any one of claims 18, 19 or 22 and assessing whether or not the candidate substance prevents or treats pre-eclampsia or prevents or treats IUGR.
24. A method of identifying a substance which prevents or treats pre-eclampsia or prevents or treats IUGR, comprising administering a candidate substance to a pregnant DDAH deficient animal and assessing whether or not the candidate substance prevents or treats pre-eclampsia or prevents or treats IUGR.
25. The method according to claim 24, wherein the DDAH deficient animal is a knockout mouse.
26. Use of a substance identified by the method according to any one of claims 23 to 25 for the manufacture of a medicament for preventing or treating pre-eclampsia or preventing or treating IUGR.